

Manchester Environmental Laboratory

7411 Beach Dr E, Port Orchard, Washington 98366

Case Narrative

July 2, 2007

Subject: Metals Pacific Coast Coal – John Henry Mine -22

Project No: 146807

Officer: Barb Smith

By: Dean Momohara

Q

Summary

Samples (bricks) were received whole. Samples 224005 and 224007 were soft enough to be grounded for analysis using a mortar and pestle. Sample 224006 was too hard to be grounded using a mortar and pestle and was broken up using a grinder. Samples were initially analyzed for total metals. Samples 224005 for chromium and 224007 for cadmium had results that would equate to levels greater than the RCRW limit and were TCLP extracted and analyzed. TCLP samples were not analyzed for mercury since the total levels did not exceed the RCRW limit.

Several matrix spike recoveries for total metals were beyond acceptance limits due to sample inhomogeneity. In some cases the source sample was qualified as an estimate. No other problems were encountered in the analyses of these samples. All other sample results were reported without qualification.

All analyses requested were evaluated by established regulatory quality assurance guidelines.

Methods

The samples were analyzed and/or digested using the following methods: EPA method 1311 for TCLP extraction, for EPA method 7471 (CVAA) for the digestion and analysis of mercury (Hg), EPA method 6010 (ICP) for the analysis of the TCLP extract, EPA method 3050B for the digestion of minerals/trace metals, and EPA method 6020 (ICPMS) for the digestion and analysis of trace metals.

Sample Information

Samples were received by Manchester Environmental Laboratory on 05/29/07. All coolers were received within the proper temperature range of 0°C - 6°C. The samples were received in good condition. Three (3) samples were received and assigned laboratory identification numbers 224005 – 224007.

Holding Times

All analyses were performed within established EPA holding times.

Calibration

Instrument calibrations and calibration checks were performed in accordance with the appropriate method. All initial and continuing calibration checks were within control limits. ICPMS and CVAA calibration correlation coefficients were within the acceptance range of 1.000 - 0.995. The instruments were calibrated with NIST traceable standards and verified to be in calibration with a second source NIST traceable standard. Solid drying oven temperatures were recorded before and after each analysis batch and were within acceptable limits.

Method Blanks

No analytically significant levels of analyte were detected in the method blanks associated with these samples.

Matrix Spikes

The matrix spike (MS) recoveries for total copper, lead, chromium and zinc were not calculated. The standard spiking level was insufficient for the elevated concentration of analyte in the source sample and no action was taken.

Both MS recoveries for total antimony were less than the lower acceptance limit probably due to matrix interference. The source sample was qualified as an estimate.

Both MS recoveries for total cadmium were less than the lower acceptance limit probably due to sample inhomogeneity. The source sample was qualified as an estimate.

All other MS recoveries were within the acceptance limits of 75% - 125%.

Replicates

All associated duplicate relative percent differences of samples with concentrations greater than 5 times the reporting limit were within the acceptance range of 0% - 20%.

Laboratory Control Samples

All laboratory control sample recoveries were within the acceptance limits of 85% - 115%.

Internal Standards

All internal standard recoveries were within acceptance limits of 60% - 125%.

Other Quality Assurance Measures and Issues

The results for sample 224006 for total chromium, copper and nickel were qualified as estimates due to possible contamination of these analytes from the grinder.

- U - The analyte was not detected at or above the reported result.
- J - The analyte was positively identified. The associated numerical result is an estimate.
- UJ - The analyte was not detected at or above the reported estimated result.
- NAF - Not analyzed for,
- NC - Not Calculated
- bold** - The analyte was present in the sample. (Visual Aid to locate detected compounds on report sheet.)

Please call Dean Momohara at (360) 871-8808 to further discuss this project.

cc: Project File

Washington State Department of Ecology
Manchester Environmental Laboratory
Project Statement

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Project Officer: Barbara Smith

Start Date: 05/29/07

Location: NWRO

Due Date: 06/28/07

Program: HWTR

Statement Date: 07/03/07

Samples:

| Parameter | Matrix | Method | Lab | Qty | Unit Price | Extended Price |
|-----------|--------|-----------|-----|-----|------------|----------------|
| MET-TCLP | 00 | 1311-6010 | ECO | 2 | \$210 | \$420 |
| PPMETS | 00 | SW6020 | ECO | 3 | \$175 | \$525 |

Total QC Charges: \$770

| Parameter | Matrix | Method | Lab | Qty | Unit Price | Extended Price |
|-----------|--------|-----------|-----|-----|------------|----------------|
| MET-TCLP | 00 | 1311-6010 | ECO | 2 | \$210 | \$420 |
| PPMETS | 00 | SW6020 | ECO | 2 | \$175 | \$350 |

Total Preparation Charges: \$ 200

| Method | Type | Matrix | Samples | Rate | Total |
|-----------|-------|--------|---------|-------|-------|
| SW1311-MT | LEACH | 00 | 4 | \$100 | \$400 |

| PIC | % | In House | Contract | Generals | Metals | Organics | Bioassay | Special | Total |
|----------------|-----|----------|----------|----------|---------|----------|----------|---------|---------|
| M2240 | 100 | \$1,915 | \$0 | \$0 | \$1,915 | \$0 | \$0 | \$0 | \$1,915 |
| Totals: | | \$1,915 | \$0 | \$0 | \$1,915 | \$0 | \$0 | \$0 | \$1,915 |

Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
TCLP metals for ICP analysis

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Sample: 07224005

Date Collected: 05/18/07

Method: 1311-6010

Field ID: SAMPLE#1

Date Prepared: 06/28/07

Matrix: Other

Project Officer: Barbara Smith

Date Analyzed: 06/29/07

Units: mg/L

| Analyte | Result | Qualifier |
|----------|--------|-----------|
| Arsenic | 0.050 | U |
| Barium | 1.20 | |
| Cadmium | 0.0050 | U |
| Chromium | 0.837 | |
| Lead | 0.050 | U |
| Selenium | 0.050 | U |
| Silver | 0.010 | U |

Authorized By: Kim Deloraine

Release Date: 6/29/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
TCLP metals for ICP analysis

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Sample: 07224007

Date Collected: 05/18/07

Method: 1311-6010

Field ID: SAMPLE#3

Date Prepared: 06/28/07

Matrix: Other

Project Officer: Barbara Smith

Date Analyzed: 06/29/07

Units: mg/L

| Analyte | Result | Qualifier |
|---------|--------|-----------|
|---------|--------|-----------|

| | | |
|---------|-------|---|
| Arsenic | 0.050 | U |
|---------|-------|---|

| | | |
|---------------|-------------|--|
| Barium | 0.46 | |
|---------------|-------------|--|

| | | |
|---------|--------|---|
| Cadmium | 0.0050 | U |
|---------|--------|---|

| | | |
|-----------------|--------------|--|
| Chromium | 0.115 | |
|-----------------|--------------|--|

| | | |
|------|-------|---|
| Lead | 0.050 | U |
|------|-------|---|

| | | |
|-----------------|-------------|--|
| Selenium | 0.15 | |
|-----------------|-------------|--|

| | | |
|--------|-------|---|
| Silver | 0.010 | U |
|--------|-------|---|

Authorized By: Paul J. Burke

Release Date: 06/29/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
TCLP metals for ICP analysis

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Sample: 07224007 (matrix spike - LMX1)

Date Collected: 05/18/07

Method: 1311-6010

Field ID: SAMPLE#3

Date Prepared: 06/28/07

Matrix: Other

Project Officer: Barbara Smith

Date Analyzed: 06/29/07

Units: % Recovery

| Analyte | Result | Qualifier |
|---------|--------|-----------|
|---------|--------|-----------|

| | | |
|---------|----|--|
| Arsenic | 98 | |
|---------|----|--|

| | | |
|--------|----|--|
| Barium | 84 | |
|--------|----|--|

| | | |
|---------|----|--|
| Cadmium | 84 | |
|---------|----|--|

| | | |
|----------|----|--|
| Chromium | 88 | |
|----------|----|--|

| | | |
|------|----|--|
| Lead | 81 | |
|------|----|--|

| | | |
|----------|-----|--|
| Selenium | 101 | |
|----------|-----|--|

| | | |
|--------|----|--|
| Silver | 91 | |
|--------|----|--|

Authorized By: John J. Smith

Release Date: 6/29/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
TCLP metals for ICP analysis

| | | |
|--|---------------------------------|---------------------------------|
| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | LIMS Project ID: 1468-07 |
| Sample: 07224007 (matrix spike - LMX2) | Date Collected: 05/18/07 | Method: 1311-6010 |
| Field ID: SAMPLE#3 | Date Prepared: 06/28/07 | Matrix: Other |
| Project Officer: Barbara Smith | Date Analyzed: 06/29/07 | Units: % Recovery |

| Analyte | Result | Qualifier |
|---------|--------|-----------|
|---------|--------|-----------|

| | | |
|----------|----|--|
| Arsenic | 96 | |
| Barium | 83 | |
| Cadmium | 82 | |
| Chromium | 86 | |
| Lead | 80 | |
| Selenium | 98 | |
| Silver | 83 | |

Authorized By: Die Schick

Release Date: 6/29/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
TCLP metals for ICP analysis

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Lab ID: MB07179E1

Method: 1311-6010

QC Type: Laboratory Method Blank

Date Prepared: 06/28/07

Matrix: Other

Project Officer: Barbara Smith

Date Analyzed: 06/29/07

Units: mg/L

| Analyte | Result | Qualifier |
|----------|--------|-----------|
| Arsenic | 0.050 | U |
| Barium | 0.10 | U |
| Cadmium | 0.0050 | U |
| Chromium | 0.0050 | U |
| Lead | 0.050 | U |
| Selenium | 0.050 | U |
| Silver | 0.010 | U |

Authorized By: Kim Selman

Release Date: 6/29/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
TCLP metals for ICP analysis

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Lab ID: ML07178E1

Method: 1311-6010

QC Type: Laboratory Control Sample

Date Prepared: 06/28/07

Matrix: Other

Project Officer: Barbara Smith

Date Analyzed: 06/29/07

Units: %

| Analyte | Result | Qualifier |
|---------|--------|-----------|
|---------|--------|-----------|

| | | |
|----------|-----|--|
| Arsenic | 107 | |
| Barium | 102 | |
| Cadmium | 104 | |
| Chromium | 106 | |
| Lead | 103 | |
| Selenium | 107 | |
| Silver | 99 | |

Authorized By: Sma Kaka

Release Date: 6/29/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Mercury

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Project Officer: Barbara Smith

Method: SW7471

Date Reported: 06/13/07

Analyte: Mercury

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|----|----------|--------|--------|-----------|----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 0.0066 | | mg/Kg dw | 05/18/07 | 06/12/07 |
| 07224006 | | SAMPLE#2 | Other | 0.0050 | U | mg/Kg dw | 05/18/07 | 06/12/07 |
| 07224007 | | SAMPLE#3 | Other | 0.044 | | mg/Kg dw | 05/18/07 | 06/12/07 |
| MB07162H2 | | Lab BLNK | Other | 0.0050 | U | mg/Kg dw | | 06/12/07 |
| ML07162H2 | | Lab LCS- | Other | 100 | | % | | 06/12/07 |

Authorized By: Scha Vataha

Release Date: 6/13/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Antimony

| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | | | | | LIMS Project ID: 1468-07 | | |
|---|----|---------------------|--------|-------------------|-----------|--------------------------|-----------|----------|
| Project Officer: Barbara Smith | | | | Method: SW6020 | | | | |
| Date Reported: 07/02/07 | | | | Analyte: Antimony | | | | |
| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
| 07224005 | | SAMPLE#1 | Other | 0.20 | U | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 0.42 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 1.9 | J | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | LMX1 (matrix spike) | | 15 | | % | 05/18/07 | 06/20/07 |
| 07224007 | | LMX2 (matrix spike) | | 0 | | % | 05/18/07 | 06/20/07 |
| MB0715911 | | Lab BLNK | Other | 0.20 | U | mg/Kg dw | | 06/20/07 |
| ML0715911 | | Lab LCS- | Other | 106 | | % | | 06/20/07 |

Authorized By: DM

Release Date: 7/27

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Copper

| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | | | | | LIMS Project ID: 1468-07 | | |
|---|---------------------|----------|--------|-----------------|-----------|--------------------------|-----------|----------|
| Project Officer: Barbara Smith | | | | Method: SW6020 | | | | |
| Date Reported: 06/27/07 | | | | Analyte: Copper | | | | |
| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
| 07224005 | | SAMPLE#1 | Other | 19.9 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 14.1 | J | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 221 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | LMX1 (matrix spike) | | | | NC | % | 05/18/07 | 06/20/07 |
| 07224007 | LMX2 (matrix spike) | | | | NC | % | 05/18/07 | 06/20/07 |
| MB07159I1 | | Lab BLNK | Other | 0.50 | U | mg/Kg dw | | 06/20/07 |
| ML07159I1 | | Lab LCS- | Other | 105 | | % | | 06/20/07 |

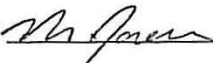
Authorized By: 

Release Date: 06/27/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Chromium

| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | | | | | LIMS Project ID: 1468-07 | | |
|---|---------------------|----------|--------|-------------------|-----------|--------------------------|-----------|----------|
| Project Officer: Barbara Smith | | | | Method: SW6020 | | | | |
| Date Reported: 06/27/07 | | | | Analyte: Chromium | | | | |
| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
| 07224005 | | SAMPLE#1 | Other | 463 | | mg/Kg dw | 05/18/07 | 06/21/07 |
| 07224006 | | SAMPLE#2 | Other | 96.3 | J | mg/Kg dw | 05/18/07 | 06/21/07 |
| 07224007 | | SAMPLE#3 | Other | 89.5 | | mg/Kg dw | 05/18/07 | 06/21/07 |
| 07224007 | LMX1 (matrix spike) | | | | NC | % | 05/18/07 | 06/21/07 |
| 07224007 | LMX2 (matrix spike) | | | | NC | % | 05/18/07 | 06/21/07 |
| MB07159I1 | Lab BLNK | Other | | 1.0 | U | mg/Kg dw | | 06/21/07 |
| ML07159I1 | Lab LCS- | Other | | 105 | | % | | 06/21/07 |

Authorized By: 

Release Date: 6/27/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Nickel

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Project Officer: Barbara Smith

Method: SW6020

Date Reported: 06/27/07

Analyte: Nickel

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|----|---------------------|--------|--------|-----------|----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 13 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 10.2 | J | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 28.8 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | LMX1 (matrix spike) | | 104 | | % | 05/18/07 | 06/20/07 |
| 07224007 | | LMX2 (matrix spike) | | 123 | | % | 05/18/07 | 06/20/07 |
| MB0715911 | | Lab BLNK | Other | 1.0 | U | mg/Kg dw | | 06/20/07 |
| ML0715911 | | Lab LCS- | Other | 105 | | % | | 06/20/07 |

Authorized By: MM. Jones

Release Date: 6/27/07

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AGCS2F000016

Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Lead

| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | | | | LIMS Project ID: 1468-07 | | | |
|---|------|----------------|----------------|--------|--------------------------|----------|-----------|----------|
| Project Officer: Barbara Smith | | | Method: SW6020 | | | | | |
| Date Reported: 06/25/07 | | | Analyte: Lead | | | | | |
| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
| 07224005 | | SAMPLE#1 | Other | 13.0 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 9.63 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 541 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | LMX1 | (matrix spike) | | | NC | % | 05/18/07 | 06/20/07 |
| 07224007 | LMX2 | (matrix spike) | | | NC | % | 05/18/07 | 06/20/07 |
| MB07159I1 | | Lab BLNK | Other | 0.10 | U | mg/Kg dw | | 06/20/07 |
| ML07159I1 | | Lab LCS- | Other | 97 | | % | | 06/20/07 |

Authorized By: Mr. Jansen

Release Date: 6/25/07

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AGCS2F000017

Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Silver

| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | | | | | LIMS Project ID: 1468-07 | | |
|---|----|---------------------|--------|-----------------|-----------|--------------------------|-----------|----------|
| Project Officer: Barbara Smith | | | | Method: SW6020 | | | | |
| Date Reported: 06/25/07 | | | | Analyte: Silver | | | | |
| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
| 07224005 | | SAMPLE#1 | Other | 10 | U | mg/Kg dw | 05/18/07 | 06/21/07 |
| 07224006 | | SAMPLE#2 | Other | 1.0 | U | mg/Kg dw | 05/18/07 | 06/21/07 |
| 07224007 | | SAMPLE#3 | Other | 27.5 | | mg/Kg dw | 05/18/07 | 06/21/07 |
| 07224007 | | LMX1 (matrix spike) | | 79 | | % | 05/18/07 | 06/21/07 |
| 07224007 | | LMX2 (matrix spike) | | 82 | | % | 05/18/07 | 06/21/07 |
| MB0715911 | | Lab BLNK | Other | 0.10 | U | mg/Kg dw | | 06/21/07 |
| ML0715911 | | Lab LCS- | Other | 105 | | % | | 06/21/07 |

Authorized By: M. Jones

Release Date: 6/25/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Beryllium

| | |
|--|---------------------------------|
| Project Name: Pacific Coast Coal-John Henry Mine - 22 | LIMS Project ID: 1468-07 |
| Project Officer: Barbara Smith | Method: SW6020 |
| Date Reported: 06/25/07 | Analyte: Beryllium |

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|----|---------------------|--------|--------|-----------|----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 1.0 | U | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 0.10 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 0.18 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | LMX1 (matrix spike) | | 86 | | % | 05/18/07 | 06/20/07 |
| 07224007 | | LMX2 (matrix spike) | | 84 | | % | 05/18/07 | 06/20/07 |
| MB0715911 | | Lab BLNK | Other | 0.10 | U | mg/Kg dw | | 06/20/07 |
| ML0715911 | | Lab LCS- | Other | 102 | | % | | 06/20/07 |

Authorized By: 

Release Date: 6/25/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Zinc

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

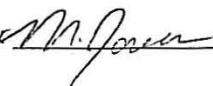
Project Officer: Barbara Smith

Method: SW6020

Date Reported: 06/25/07

Analyte: Zinc

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|---------------------|----------|--------|--------|-----------|----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 34 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 66 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 1500 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | LMX1 (matrix spike) | | | | NC | % | 05/18/07 | 06/20/07 |
| 07224007 | LMX2 (matrix spike) | | | | NC | % | 05/18/07 | 06/20/07 |
| MB0715911 | Lab BLNK | Other | | 5.0 | U | mg/Kg dw | | 06/20/07 |
| ML0715911 | Lab LCS- | Other | | 111 | | % | | 06/20/07 |

Authorized By: 

Release Date: 06/25/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Arsenic

| Project Name: Pacific Coast Coal-John Henry Mine - 22 | | | | | | LIMS Project ID: 1468-07 | | |
|---|---------------------|----------|--------|------------------|-----------|--------------------------|-----------|----------|
| Project Officer: Barbara Smith | | | | Method: SW6020 | | | | |
| Date Reported: 06/25/07 | | | | Analyte: Arsenic | | | | |
| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
| 07224005 | | SAMPLE#1 | Other | 1.0 | U | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 1.0 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 20.8 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | LMX1 (matrix spike) | | | 77 | | % | 05/18/07 | 06/20/07 |
| 07224007 | LMX2 (matrix spike) | | | 76 | | % | 05/18/07 | 06/20/07 |
| MB0715911 | Lab BLNK | Other | | 0.10 | U | mg/Kg dw | | 06/20/07 |
| ML0715911 | Lab LCS- | Other | | 104 | | % | | 06/20/07 |

Authorized By: *Mr. J. J. [Signature]*

Release Date: 6/25/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Selenium

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Project Officer: Barbara Smith

Method: SW6020

Date Reported: 06/25/07

Analyte: Selenium

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|----|---------------------|--------|--------|-----------|----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 5.0 | U | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 0.90 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 8.96 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | LMX1 (matrix spike) | | 90 | | % | 05/18/07 | 06/20/07 |
| 07224007 | | LMX2 (matrix spike) | | 87 | | % | 05/18/07 | 06/20/07 |
| MB0715911 | | Lab BLNK | Other | 0.50 | U | mg/Kg dw | | 06/20/07 |
| ML0715911 | | Lab LCS- | Other | 106 | | % | | 06/20/07 |

Authorized By: M. Jensen

Release Date: 6/25/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Cadmium

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

Project Officer: Barbara Smith

Method: SW6020

Date Reported: 06/25/07

Analyte: Cadmium

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|----|---------------------|--------|--------|-----------|----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 0.13 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 0.26 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 57.4 | J | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | LMX1 (matrix spike) | | 72 | | % | 05/18/07 | 06/20/07 |
| 07224007 | | LMX2 (matrix spike) | | 72 | | % | 05/18/07 | 06/20/07 |
| MB07159I1 | | Lab BLNK | Other | 0.10 | U | mg/Kg dw | | 06/20/07 |
| ML07159I1 | | Lab LCS- | Other | 105 | | % | | 06/20/07 |

Authorized By:



Release Date:

6/25/07

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Washington State Department of Ecology
Manchester Environmental Laboratory
Analysis Report for
Thallium

Project Name: Pacific Coast Coal-John Henry Mine - 22

LIMS Project ID: 1468-07

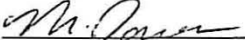
Project Officer: Barbara Smith

Method: SW6020

Date Reported: 06/25/07

Analyte: Thallium

| Sample | QC | Field ID | Matrix | Result | Qualifier | Units | Collected | Analyzed |
|-----------|----|---------------------|--------|--------|-----------|-----------|-----------|----------|
| 07224005 | | SAMPLE#1 | Other | 0.16 | | mg/Kg dw. | 05/18/07 | 06/20/07 |
| 07224006 | | SAMPLE#2 | Other | 0.22 | | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | SAMPLE#3 | Other | 10 | U | mg/Kg dw | 05/18/07 | 06/20/07 |
| 07224007 | | LMX1 (matrix spike) | | 92 | | % | 05/18/07 | 06/20/07 |
| 07224007 | | LMX2 (matrix spike) | | 98 | | % | 05/18/07 | 06/20/07 |
| MB07159I1 | | Lab BLNK | Other | 0.10 | U | mg/Kg dw | | 06/20/07 |
| ML07159I1 | | Lab LCS- | Other | 102 | | % | | 06/20/07 |

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Release Date: 6/25/07

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